

frequency characteristics for shifts caused by manufacturing-induced variations.

Also, when the filter and associated peripheral circuit are integrated on the same substrate, it is possible to reduce the size of the device and 5 improve the reliability. Also, in an electronic device such as a telecommunication device which contains the filter according to the present invention, a cost-down can be achieved for the product, in addition to the ability to reduce the size of the device and improve the reliability.

BRIEF DESCRIPTION OF THE DRAWINGS

10 Figs. 1A-1C are plan views illustrating a first to a third embodiment of the present invention;

Figs. 2A-2D are cross-sectional views and operation description diagrams in the first embodiment of the present invention;

15 Figs. 3A-³2E are cross-sectional views and operation description diagrams in the second and third embodiments of the present invention;

Figs. 4A-4D are a top view, a front view, a side view, and an operation description diagram illustrating a first example of the present invention;

Fig. 5 is a diagram illustrating the configuration of a variable voltage source which is used in the example of the present invention;

20 Fig. 6 is a diagram (No. 1) illustrating the configuration which comprises a plurality of filters that differ in a range in which the center frequency can be changed, for describing the first example of the present invention;

25 Fig. 7 is a diagram (No. 2) illustrating the configuration which comprises the plurality of filters that differ in the range in which the center frequency can be changed, for describing the first example of the present

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